

TIPOV. I.

the thousand inventions in a year. Izobr. i ratr. no.11:30-33  
(ITA 14:11)

(Udarny A.S.S.R.--Technological innovations)

TITOVA, I. (g.Gor'kiy)

Your attorney. Izobretatel'skaya rats. no.6:17-18 Je '62. (MIRA 15:6)

1. Spetsial'nyy korrespondent zhurnala "Izobretatel' i ratsionalizator".

(Gorkiy---Automobile industry---Technological innovations)

TITOVA, I. (Podol'sk)

Flow of suggestions. Izobr. i rats. no. 7:1-2 JI '62. (MIRA 16'3)

1. Spetsial'nyy korrespondent zhurnala "Izobretatel' i ratsionalizator".  
(Podol'sk—Machinery industry)

TITOVA, I.

Innovations by women. Izobr.i rats. no.11:20-21 N '62. (MIRA 15:12)

1. Spetsial'nyy korrespondent zhurnala "Izobretatel' i ratsionalizator".  
(Women as inventors)

TITOVA, I.

Moscow constructors presented the State with the  
No.149549 invention. Izobr.i ~~ats~~ no.10:17 0 '62.  
(MIRA 15:9)  
(Technological innovations)

TITOVA, I.

Innovators, get your money in the disbursement office of the  
factory. Izobr.i rats. no.5:17-18 My '62. (MIRA 15:5)

1. Spetsial'nyy korrespondent zhurnala "Izobretatel' i  
ratsionalizator", g. Makeyevka.  
(Makeyevka--Iron and steel plants--Technological innovations)

TITOVA, I.

Accidental passer-by. Izobr. 1 rats. no.8:25-26 Ag '62.  
(MIRA 15:9)

1. Spetsial'nyy korrespondent zhurnala "Izobretatel' i  
ratsionalizator".

(Inventions)

TITOVA, I.

Dough rolling machine. Izobr.1 rats. no.1:23-25 Ja '61.

(MIRA 14:1)

(Bakers and bakeries—Equipment and supplies)



TITOVA, I.

Hundred miracles of enzymes. IUn. nat. no.6:34-35 Je '63.  
(MIRA 16:8)

TITOVA, I.

By the method of movable shields. Izobr. i rats. no.12:26-  
27 '63. (MIRA 17:2)

1. Korrespondent zhurnala "Izobretatel' i ratsionalizator".

TITOVA, I.

Flax revenges itself. Znan.-sila 38 no.5:41-43 My '63.  
(MIRA 16:11)

TITOVA, I.

Jumping into fire. Izobr. 1 rats. no.7:35-36 '63. (MIRA 16:9)  
(Forest fires—Prevention and control)

TITOVA, I.

Preservation method has been "canned." Izobr. 1 rats. no.4:  
30-32 '63. (MIRA 16:7)

(Food, Frozen)

TITOVA, I.

Chemistry that kills. Znan.-sila 38 no.2:4-6 F '63. (MIRA 16:3)  
(Fungicides) (Insecticides) (Herbicides)

TITOVA, I.

The "Vita" production, Izobr. i rats. no. 5 (201) 11-13 '63.  
(MIRA 16:7)  
(Shchelkovo—Vitamins)

TITOVA, I.A.; BEL'SKAYA, M.G.

Internal standard method of determination of 7-aminoanthic acid in 9-aminopelargonic acid in the infrared. Zhur. anal. khim. 20 no. 11:1235-1238 '65 (MIRA 19:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza, Moskva. Submitted November 25, 1964.



TITOVA, I.A.; VOLODARSKAYA, Yu.I.

Quantitative determination of a cis-isomer in a mixture of cis- and trans- $\beta$ -(4-aminocyclohexyl) propionic acids by infrared spectroscopy. Zhur. anal. khim. 21 no. 1:119-121 '66  
(MIRA 19:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza, Moskva.

KONDAKOV, V.V.[deceased]; RYZHONKOV, D.I.; TITOVA, I.A.

Reduction of molten cuprous oxide by solid carbon. Izv. vys. ucheb.  
zav.; chern. met. 5 no.9:26-30 '62. (MIRA 15:10)

1. Moskovskiy institut stali i splavov.  
(Copper oxide)

TITOVA, I.D.

Operation of a tailings disposal plant. Trudy Mekhanobr. no.93:  
92-112 '56. (MIRA 11:6)  
(Ore dressing--Equipment and supplies) (Waste products)

Titova, I. D.

137-1958-3-4514

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 5 (USSR)

AUTHORS: Mel'nikov, T. I., Titova, I. D.

TITLE: The Employment of the Hydraulic Conveyor Installation of the Magnitogorsk Concentrating Plants (Opyt ekspluatatsii gidrotransportnoy ustanovki magnitogorskikh rudoobogatitel'nykh fabrik)

PERIODICAL: Sb. nauchn. tr. Magnitogorskiy gorno-metallurg. in-t, 1957, Nr 12, pp 168-187

ABSTRACT: Description of the hydraulic conveyor installation, the physicochemical properties of solid pulp constituent, the equipment of the pulp lines and of the pulp pumping station, the nature of the pulp's motion, operational experience with the pulp lines, and the regulating and measuring equipment of the station. When a suction dredge with an output of  $3600 \text{ m}^3/\text{hr}$  is employed, the  $40 \text{ m}^3$  pulp storage tank, as well as the electric motors, rated at 750 kw (for pump dredges of 1100 mm in diameter), and 900 kw (for a diameter of 1250 mm), recommended by the M. I. Kalinin plant, are evidently inadequate. At a pulp flow of  $3600 \text{ m}^3/\text{hr}$ , a pulp line 800 mm in diameter carries a constant layer of sludge

Card 1/2

137-1958-3-4514

\ The Employment of the Hydraulic Conveyor Installation (cont.)

only 300 mm deep throughout the line, which points to the irrational utilization of the available cross sectional area of the pipe line. In order to improve the wear resistance, components of the suction dredges should be coated with rubber or with abrasive materials.

A. Sh.

Card 2/2

MEL'NIKOV, T.I.; TITOVA, I.D.

Operating a hydraulic transportation system for tailings  
from the Magnitogorsk ore dressing plants. Doc. no. 4 no. 6:  
41-49 '59. (MIRA 14:8)

(Hydraulic conveying)  
(Magnitogorsk--Tailings (Metallurgy))

CZECHOSLOVAKIA / General Problems of Pathology. Immunity.

U-1

Abs Jour : Ref Zhur - Biol., No 17, 1958, No 80194

Author : Vyazov, O. E.; Konyukhov, B. V.; Averkina, R. F.; Titova, I.

Inst : I.  
Not given

Title : Immunological Studies in Embryonic Development. I. Antigenic  
Properties of Embryonic Tissues.

Orig Pub : Folia biol. (Ceskosl.), 1958, 4, No. 1, 1-10.

Abstract : No abstract.

Card 1/1

TITOVA, I.I.

Studying the antigenic properties of the crystalline lens in  
wollfian regeneration [with summary in English]. Biul.eksp.biol.  
i med. 43 no.6:7-74 Je '57. (MIRA 10:10)

1. Iz laboratorii immunologii embriogeneza (zav. - kand.med.nauk  
O.Ye.Vyazov) Instituta eksperimental'noy biologii (dir. - prof.  
I.N.Mayskiy) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom  
AMN SSSR prof. N.H.Zhukovym-Verézhnikovym.  
(CRYSTALLINE LENS, diseases,  
wollfian degen., antigenic aspects (Rus))



TITOVA, I.I.

Studies on the mechanism of organ growth during the embryogenesis.  
Report No.1: Effect of transplanted pieces of adult and embryonic  
chicken spleens on the spleen of the recipient embryo. Biul.  
eksp. biol. med. 51 no.4:107-110 Ap '61, (MIRA 14:8)

1. Iz laboratorii immunologii embriogeneza (zav. kandidat meditsinskikh  
nauk O.Ye.Vyazov) Instituta eksperimental'noy biologii (dir. - prof.  
I.N.Mayskiy) AMN SSSR, Moskva. Predstavlena deystvitel'nyy chlenom  
AMN SSSR N.N.Zhukovym-Verezhnikovym.  
(SPLEEN)

TITOVA, I.I.; GORT, Ya.

Studies on the mechanism of the regulation of embryonic organ growth.  
Report No.2: Effect of grafts on spleen tissues from chick embryos  
enlarged by the effect of adult spleens on the growth of organs in  
normal chick embryos. Biul. eksp. biol. i med. 51 no.5:99-101 My  
'61. (MIRA 14:8)

1. Iz laboratorii immunologii embriogeneza (zav. - kand.med.nauk  
O.Ye.Vyazov) Instituta eksperimental'noy biologii (dir. - prof.  
I.N.Mayskiy) AMN SSSR, Moskva. Predstavlena deystvitel'nyim chlenom  
AMN SSSR, N.N.Zhukovym-Verezhnikovym.  
(SPLEEN)

VYAZOV, O.Ye.; VOLKOVA, L.S.; TITOVA, I.I.; MURASHOVA, A.I.

Humoral relations between the bodies of the mother and the fetus  
in their clinical and experimental aspects. Vest.AMN SSSR 17  
no.11:23-31 '62. (MIRA 16:1)

1. Institut eksperimental'noy biologii AMN SSSR i Institut  
akusherstva i ginekologii Ministerstva zdravookhraneniya RSFSR.  
(FETUS) (PREGNANCY) (NEUROCHEMISTRY)

VYAZOV, O.Ye.; MOL'KOVA, A.I.; KONYUKHOV, B.V.; LISHTVAN, L.L.; TITOVA,  
I.I.; VOLKOVA, L.S.

Conducting immunobiological research on invertebrates at the  
White Sea Biological Station. Trudy Belomor.biol.sta.MGU 1:262-  
280 '62. (MIRA 16:1)

1. Laboratoriya immunologii embriogeneza Instituta eksperimental'-  
noy biologii AMN SSSR.

(White Sea--Invertebrates) (Immunology)

TITOVA, I.I.

Studies on the regulation mechanism of organ growth in embryogenesis.  
Report No.3: Effect of myocardial tissue grafts from adult hens and  
chick embryos on the myocardium of recipient embryos. Biul. eksp.  
biol. i med. 52 no.12:85-88 D '61. (MIRA 14:12)

1. Iz laboratorii immunologii embriogeneza (zav. - kand.med.nauk  
O.Ye.Vyazov) Instituta eksperimental'noy biologii (dir. - prof.  
I.N.Mayskiy) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom  
AMN SSSR N.N.Zhukovym-Verezhnikovym.  
(HEART--MUSCLE) (TISSUES--TRANSPLANTATION)  
(EMBRYOLOGY--BIRDS)

VLA OV, U.No., kand.med.nauk: S.TOVA, I.I., nauchnyy sotrudnik

Is it possible to control the development of the embryo?  
Nauka i zhizn' 20 no.6:71-73 Je '61. (MIA 2/4:7)

1. Zavodskiy laboratoriy d. univ. A. embriogenez  
Institut eksperimental'noy biolo i Akademii meditsinskikh  
nauk: USSR (Per Vguzov).

(EMBRYOLOGY)

VYAZOV, G.Ye.; KONYUKHOV, B.V.; AVERKINA, R.F.; TITOVA, I.I.

Use of immunological methods for studying the problems of tissue evolution. Izv. AN SSSR Ser. biol. 30 no.1:108-113 Ja-F '65.  
(MIRA 18:2)

1. Institute of Experimental Biology, Academy of Medical Sciences of the U.S.S.R., Moscow.

TITOVA, I.I.

Study of the mechanism of the growth regulation of organs during embryogenesis. Report No. 4: The action of lial cell tissue passing through membrane filters on the growth of the organs of chicken embryos. Biul. eksp. biol. i med. 54 no. 12: 100-102 D'62. (MIRA 16:6)

1. Iz laboratorii immunologii embriogeneza (zav. -- kand. med. nauk O.Ye. Vyazov) Instituta eksperimental'noy biologii (dir. - prof. I.N. Mayskiy) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR N.N. Zhukovym-Verezhnikovym. (GROWTH) (EMBRYOLOGY--BIRDS)  
(TISSUE EXTRACTS)



L 27753-66 EWT(m)/EWP(t)/ETI IJP(c) JD	
ACC NR: AP6015715 (N)	SOURCE CODE: UR/0413/66/000/009/0135/0135
INVENTOR: <u>Titova, Y. Ye.</u> <span style="float: right;">29 B</span>	
ORG: none	
TITLE: A method of titanium pickling. Class 48, No. 181475 [announced by Ural State University im. A. M. Gor'kiy (Ural'skiy gosudarstvennyy universitet)]	
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 135	
TOPIC TAGS: titanium, titanium pickling, titanium pickling solution	
ABSTRACT: This Author Certificate introduces a method of pickling titanium in a solution of hydrochloric acid containing sodium fluoride. In order to stabilize the process and increase the service life of the pickling solution, ions of titanium tetrachloride in the amount 4.35 g/l are added to the solution. [WW]	
SUB CODE: 11/ SUBM DATE: 06Jul63/ ATD PRESS: 5001	
Card 1/1 <span style="float: right;">2</span>	UDC: 621.794.443:669.295

T. L. H. T. M.

TITOVA, I.Ye.; PARTINA, T.

Characteristics of the solution of zinc in orthophosphoric acid.  
Zhur.prikl.khim. 35 no.10:2343-2346 0 '62. (MIRA 15:12)  
(Zinc) (Phosphoric acid)

L 1611-66 EWT(m)/T/EWP(t)/EWP(b)/ENA(c) IJP(c) JD

ACCESSION NR: AP5021665

UR/0080/65/038/008/1736/1740

AUTHOR: Titova, I. Ye.; Lipatnikova, V.

TITLE: Study of some factors affecting the properties of a hydrochloric acid solution used for etching titanium alloys

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 8, 1965, 1736-1740

TOPIC TAGS: titanium alloy, nonaqueous solution, hydrochloric acid, sodium compound, fluoride, metal etching

ABSTRACT: For etching low titanium alloys, a solution containing 6 wt% hydrochloric acid and 5 wt% sodium fluoride is generally used. The object of the present work is to explain the reason for the rapid loss of activity of this solution and to point the way to its more rational use. Tests were carried out by the weight method on oxidized titanium samples previously heated in a furnace for 30 min at 540 C. It was established that an etching solution containing 21.3 gram/liter of titanium lost its activity in 60 hours, while the rate of solution of titanium

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L 1611-66

ACCESSION NR: AP5021665

in the solution fell by approximately 1000 times. For a solution containing 13-19 gram/liter, loss of activity was observed only after 120-130 hours. Loss of activity of the etching solution is accompanied by a marked shift of the electrode potential to the positive side. Study of the activity of an etching solution in a reducing medium, produced either with hydrogen or by addition of  $\text{Na}_2\text{SO}_3$  to the solution, showed no difference from its activity in air. It was found that addition of small amounts of titanium chlorides ( $\text{TiCl}_3$  or  $\text{TiCl}_4$ ) significantly redistributes the activity of the etching solution. It is concluded that loss of activity is not connected with oxidation of the solution. Orig. art. has: 1 figure and 1 table

ASSOCIATION: Ural'skii gosudarstvennyi universitet (Ural State University) <sup>44/55</sup>

SUBMITTED: 20Dec63

ENCL: 00

SUB CODE: GC, MM

NR REF SOV: 003

OTHER: 000

Card 2/2

TITOVA, I.Ye.; KHAMAGANOVA, T.

Effect of lead impurities on the corrosion resistance of  
electrolytic zinc. Zhur.prikl.khim. 33 no.7:1591-1594  
Jl '60. (MIRA 13:7)

1. Ural'skiy gosudarstvennyy universitet imeni Gor'kogo.  
(Zinc--Corrosion) (Lead)

ГЛОВА, Л.Ю.; Давыдов, Л.

Effect of surface-active agents on the dissolution rate of some  
metals in hydrochloric acid. *Zhur. Fiz. Khim.* 38 no.6:1611-1614  
Jo 1(4). (USSR 1963)

1. Ural'skiy gosudarstvennyy universitet imeni A.M. Ger'skogo.

05812

S07/76-33-10-10/45

5(4)

AUTHOR: Titova, I. Ye.

TITLE: On the Effect of the Addition of 8-Oxyquinoline on the  
Dissolution Rate of Iron and Aluminum in Hydrochloric Acid

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 10, pp 2173-2177  
(USSR)

ABSTRACT: The students A. Rodionova and V. Ikonnikova participated in the present investigation. It dealt with the effect exerted by 8-oxyquinoline as inhibitor of the dissolution of iron and aluminum in hydrochloric acid. The experiments, which yielded unexpected results, were carried out at  $18 \pm 1$  C by the gravimetric method and the method of polarization curves (already described in reference 2). 0.51, 1.06, 1.69 and 2.28n HCl as well as various concentrations of 8-oxyquinoline additions between 0.0001 and 0.04 mol/l were used. The additions of 8-oxyquinoline were found to have different effects. The dissolution rate of aluminum in hydrochloric acid rises, whereas that of iron drops. The stimulating and inhibiting effects depend on the concentration of the acid and the additions of 8-oxyquinoline (Fig 1). The strongest stimulating effect was found in dilute acid (0.51n HCl); it drops again with rising acid concentration and changes to inhibition of

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05812

SOV/76-33-10-10/45

On the Effect of the Addition of 8-Oxyquinoline on the Dissolution Rate of Iron and Aluminum in Hydrochloric Acid

aluminum dissolution in 2.28n HCl. The polarization curves (Figs 2, 3) show that the influence exerted by the additions upon the dissolution of aluminum and iron in HCl differs. In iron dissolution the cathodic and anodic processes are inhibited, while the cathodic process is inhibited in aluminum dissolution and the anodic process is stimulated. These observations are explained by the chemical properties of 8-oxyquinoline (such as its amphoteric nature) and the specific properties of the iron- and aluminum surfaces in hydrochloric acid (such as the different surface charge). There are 3 figures and 9 references, 8 of which are Soviet.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet im. A. M. Gor'kogo, Sverdlovsk  
(Ural State University imeni A. M. Gor'kiy, Sverdlovsk)

SUBMITTED: March 12, 1958

Card 2/2

S/080/60/033/007/022/024/XX  
D270/D304

AUTHORS: Titova, I.Ye. and Khamaganova, T.

TITLE: The effect of adding small amounts of lead on the corrosion resistance of electrolytic zinc

PERIODICAL: Zhurnal prikladnoy khimii, v. 33, no. 1, 1960, 1591-1594

TEXT: This report was to fill a gap in literature by investigating how the addition of small amounts of lead affected the corrosion resistance of electrolytic zinc. Previous results had been contradictory. The present experiments were conducted in acid and alkali media since both zinc and lead are among those metals stable in neutral solutions, but not in acid or alkali solutions. Specimens were prepared from pure electrolytic zinc, mark Ts-0, with addition of from 0.08 to 1.35% by weight of lead, from zinc plus 0.94% lead, 0.2% aluminum and 0.44% tin and from pyrometallurgic zinc, mark Ts-4. Polarization curves were plotted and weight and volume measurements taken. The method was analagous to that of I.Ye. Titova

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S/080/60/033/007/022/024/XX  
D270/D304

The effect of adding...

and G.I. Chufarov (Ref. 5: ZhFKh, 29, 502 (1955)). The specimens were previously cleansed of fat by a spirit-ether mixture, washed and dried. Temperature  $18 \pm 0.5^\circ$ . Addition of from 0.08 to 1.35% by weight of lead increased corrosion resistance in solid media and, to a much greater extent, in alkaline media. Addition of 0.08% lead lowered considerably the speed of dissolution and this only rose slightly when the lead content exceeded 0.58%. Results by weight and by volume in acid media agreed but showed considerable discrepancy in alkali media. Thus the average dissolution speed in N KOH solution, calculated by weight, is  $0.465 \cdot 10^{-6} \text{ g/cm}^2/\text{min}$ , and by volume  $0.085 \cdot 10^{-6} \text{ g/cm}^2/\text{min}$ . This is because the corrosion speed depends not only on the kinetics of hydrogen production but also on the reduction of oxygen. Addition of 0.94% Pb + 0.2% Al + 0.44% Sn increased the corrosion speed under acid conditions and had no effect under alkaline conditions. Addition of 0.08% by weight of lead shifted the zinc potential in a positive direction but further addition of lead reversed this because hydrogen formation at the cathode slowed down, as polarization curves confirm. Cathode polarization of zinc increased with increase in lead content,

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The effect of adding...

S/080/60/033/007/022/024/XX  
D270/D304

while anode polarization was almost unaffected. This increase in cathode polarization was less under alkaline conditions. Conclusions: 1) Corrosion resistance of electrolytic zinc was increased in acid and alkaline conditions by additions of from 0.08 to 1.35% by weight of lead; 2) The effect depends on the cathode formation of hydrogen and was greater in acid conditions; 3) A eutetic composition of Zn-Pb has the greatest corrosion resistance. There are 3 figures and 8 references: 7 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: Heinz Bablik, Galvanizing (Hot-Dip). 3<sup>d</sup> ed., London, W.C.2. 187 (1950).

ASSOCIATION: Ural'skiy gosudarstvennyy universitet imeni Gor'kogo  
(Ural State University im. Gor'ky)

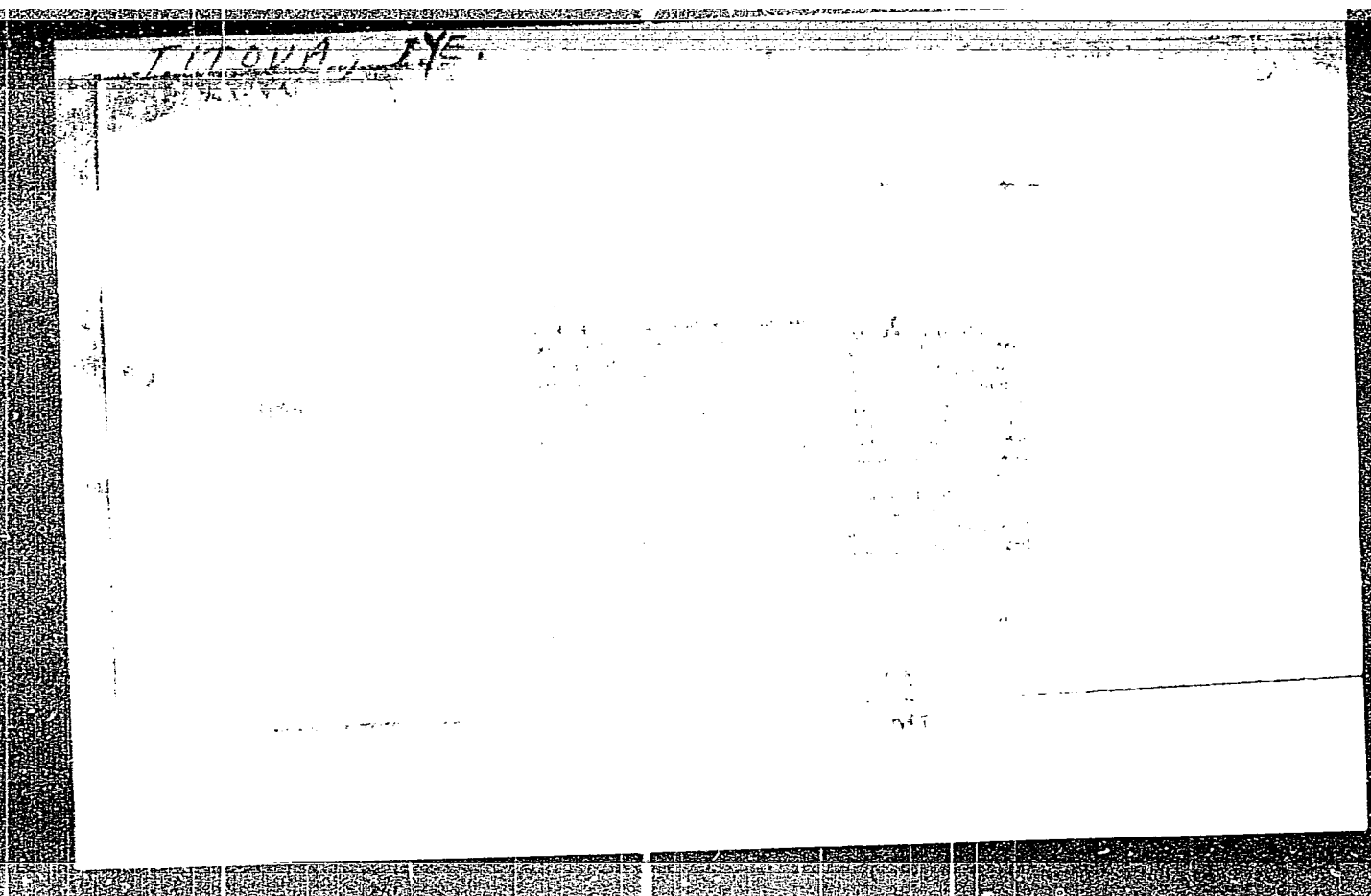
SUBMITTED: December 21, 1959

Card 3/3

TITOVA, I.Ye.; ROGOZINA, N.

Inhibiting effect of polyacrylamide in relation to iron and  
steel in a pickling solution. Zhur. prikl. khim. 34 no.5:  
1052-1057 My '61. (MIRA 16:8)

(Acrylamide) (Iron—Pickling)  
(Steel—Pickling)



TITOVA, K.A.; SVETISOV, N.P.

From abroad. Khim. prom. 42 no.9:705-709 3 '65. (MIRA 18:9)

TITOVA, K. N.; BERVAL'D, E. A.

Regulation of roach (*Rutilus rutilus heckeli* Nordm) fisheries  
in Proletarskaya Reservoir. Vop. ikht. 2 no.3:428-432 '62.  
(MIRA 15:10)

1. Nauchno-issledovatel'skiy biologicheskiy institut Rostovskogo-  
na Donu gosudarstvennogo universiteta.

(Proletarskaya Reservoir--Roach(Fish))



TITOVA, K.N.

Ecological and morphological characteristics of roach in the  
Manych reservoir system. Nauch. dokl. vys. shkoly; biol. nauki  
no.3:39-43 '61. (MIRA 14:7)

1. Rekomendovana Nauchno-issledovatel'skim biologicheskim institutom  
Rostovskogo gosudarstvennogo universiteta.  
(MANYCH VALLEY--ROACH (FISH))

TITOVA, K.N.

Effect of ecologic conditions on the formation of the roach stock  
in Manyh reservoirs. Vop. ekol. 5:220-221 '60. (MIRA 16:6)

1. Biologicheskii institut Rostovskogo-na-Donu universiteta.  
(Manyh River—Roach (Fish))

L 1599-66

ACCESSION NR: AP5024772

UR/0219/64/058/009/0062/0066

AUTHOR: Kolpakov, M. G.; Titova, K. T.

TITLE: Effect of adrenal glands on the enzymatic activity of the blood and tissues in resuscitation

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 58, no. 9, 1964, 62-66

TOPIC TAGS: hematology, endocrinology, blood, autotransplantation, gland, enzyme

ABSTRACT: The aldolase and glutathione activity of the blood, cardiac muscle and liver of cats resuscitated after a fatal blood loss were studied. The cats were variously intact, adrenal-ectomized, and with autotransplanted adrenals.

In resuscitation of intact animals, there was an increase of aldolase in the blood and concomitant reduction in the liver but no observable change in the heart. Glutathione content increased in the blood and remained unchanged in the tissues. In dying and resuscitated adrenalectomized cats, the aldolase and glutathione activity of the blood remained unchanged. In the

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L 1599-66

ACCESSION NR: AP5024772

animals with autotransplanted adrenals, the blood aldolase activity reached control levels during resuscitation while the glutathione content increased somewhat.

It is concluded that the results obtained are related to the varying degree of exclusion of the corticosteroid function resulting from adrenalectomy and autotransplantation of the adrenals. The results also show the close relation of the course of enzymatic adaptive reactions to the functional state of the adrenal cortex, and indicate the advisability of investigating the possibility of using the stimulating effect of corticosteroid compounds on enzymatic transformations during resuscitation. Orig. art. has: 3 tables.

ASSOCIATION: Novokuznetskiy institut usovershenstvovaniya vrachey (Novokuznetsk Institute for the Advanced Training of Physicians)

SUBMITTED: 22Mar63

ENCL: 00

SUB CODE: LS

NR REF SOV: 018

OTHER: 007

JPRS

Card 2/2 *DP*

L 13509-63

EWP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP3003471

3/0078/63/008/007/1579/1583

AUTHOR: Zinov'yev, A. A.; Titova, K. V.TITLE: Some properties of trihydrate of lithium permanganate

SOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 7, 1579-1583

TOPIC TAGS: lithium, lithium permanganate, barium permanganate

ABSTRACT: The authors analyzed the properties of lithium permanganate because this has not been studied as much as some of the other permanganates of alkali metals. The lithium permanganate was obtained through a volumetric reaction of lithium sulfate and barium permanganate, which was prepared according to the somewhat-altered Mutman method (G. Brauer, Rukovodstvo po preparativnoy neorganicheskoy khimii, Izd. IL, Moscow, 1956). Authors established by thermographic method that trihydrate of lithium permanganate melts with a partial decomposition at 104-107° and decomposes violently at 200°. Data was obtained for the solubility in the system  $\text{LiMnO}_4\text{-H}_2\text{O}$  in a temperature interval from -12.5 to +100°. A composition containing 22.3%  $\text{LiMnO}_4$  and temperature of -12.5° corresponds to the eutectic point. It was shown that lithium permanganate evolves into the solid phase in the form of a trihydrate in all of the examined temperature intervals. The solubility in the system  $\text{LiMnO}_4\text{-LiClO}_4\text{-H}_2\text{O}$

Card 1/2

L 13509-63

ASSESSMENT NR: AP3003471

sub 2 C was studied at 0°. The existence of solid solutions of trihydrate of lithium permanganate the lithium peroxide was confirmed. It was also shown that solid solutions in this system exist in all ranges of concentration. Orig. art. has: 4 figures and 3 tables. 0

ASSOCIATION: None

SUBMITTED: 02Nov62

DATE ACQ: 02Aug 63

ENCL: 00

SUB CODE: CH,EL

NO REF SOV: 002

OTHER: 006

Card 2/2

TITOVA, K.V.; ROSOLOVSKIY, V.Ya.

System guanidinium perchlorate-lithium perchlorate. Zhur. neorg.  
khim. 10 no.2:451-453 F '65. (MIRA 18:11)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova  
AN SSSR, laboratoriya okisliteley. Submitted Febr. 29, 1964.

KRIVTSOV, N.V.; TITOVA, K.V.; ROSOLOVSKIY, V.Ya.

Enthalpy of the formation of guanidinium perchlorate, nitrate,  
and sulfate. Zhur. neorg. khim. 10 no.2:454-457 F '65.  
(MIRA 18:11)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova  
AN SSSR, laboratoriya oksiditeley. Submitted Febr. 29, 1964.



TITOVA, K.V.; ROSOLOVSKIY, V.Ya.

Some physicochemical properties of guanidinium perchlorate.  
Zhur. neorg. khim. 10 no.2:446-450 F '65. (MIRA 18:11)

Institut obshechey i neorganicheskoy khimii imeni Kurnakova  
AN SSSR, laboratoriya okisliteley. Submitted Febr. 29, 1964.

OBOLENTSEV, R.D.; AYVAZOV, B.V. ; TITOVA, K.V.

Comparative characteristics of various silica gel samples based on their relations to sulfur organic compounds contained in some fuels. Khim.sera-i azotorg.sosd.sed.v nef.t.i nefteprod. 3:211-217 '60. (MIRA 14:6)

1. Bashkirskiy filial AN SSSR, Otdel khimii.  
(Silica) (Adsorption) (Sulfur organic compounds)

OBOLENTSEV, R.D.; AYVAZOV, B.V.; TITOVA, K.V.

Role of elementary sulfur in the formation of hydrogen sulfide  
during the heating of curde oils. Khim.sera-i azotorg.sced.sod.v نفت.  
1 nefteprod. 3:253-259 '60. (MIRA 14:6)

1. Bashkirskiy filial AN SSSR, Otdel khimii.  
(Petroleum---Thermal properties) (Hydrogen sulfide)  
(Sulfur)

ZINOV'YEV, A.A.; TITOVA, K.V.

Some properties of lithium permanganate trihydrate. Zhur.  
neorg. khim. 8 no.7:1579-1583 J1 '63. (MIRA 16:7)

(Lithium permanganate)

ACCESSION NR: AP5005011

AUTHOR: Titova, K. V.; Rosolovskiy, V. Ya.

TITLE: Certain physical-chemical properties of guanidinium perchlorate

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 2, 1965, 446-450

TOPIC TAGS: guanidinium perchlorate, crystal structure, solubility, thermal stability, polymorphic transition

ABSTRACT: The phys. and chem. properties of guanidinium perchlorate (I) were studied. I belongs to the  $Tr$  group. The lattice parameter  $a = 0.352 \pm 0.005$  kKh. I does not form hydrates. Its solubility in water increases with temperature. I is soluble in polar organic solvents and insoluble in the non-polar solvents. Thermogravimetric studies show a polymorphic transition at  $1310^\circ$ . I melts at  $248 \pm 2^\circ$ . A wide range of structural changes in the ten-membered cationic composition occurs at  $492^\circ$ . The properties of I compare with those of the perchlorates of ammonium and alkali metals. Orig. art. has 5 tables, 3 figures.

Card 1/2

L 36696-65

ACCESSION NR: AP5005011

and 2 equations

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova  
Akademii nauk SSSR Laboratoriya oksisliteley (Institute of General and Inorganic  
Chemistry Academy of Sciences Laboratory of Oxidizing Agents)

SUBMITTED 2-6-64

SERIAL CODE 001, 10

NR REF SOV: 002

OTHER: 007

Card 2/2

ACCESSION NR AP5005012

AUTHOR. Titova, K. V.; Roelovskiy, V. Ya.

TITLE The guanidinium perchlorate-phosphoric perchlorate system

SOURCE Zh. fiz. khim. 40, 2, 1966, 451-453

TOPIC TAGS: guanidinium perchlorate containing system, phase diagram, crystallization, hygroscopicity, guanidinium perchlorate

ABSTRACT: The phase diagram for the system guanidinium perchlorate-phosphoric perchlorate is presented. The diagram shows the regions of stability of the various phases and the lines of phase transition. The diagram is plotted against temperature and composition. The system is characterized by a high degree of hygroscopicity. The phase diagram is of interest for the study of the properties of the system and for the development of new materials.

From guanidinium perchlorate-crystallization curve consisted of high temperature and low temperature regions. The high temperature region is characterized by a high degree of hygroscopicity. The low temperature region is characterized by a low degree of hygroscopicity. The phase diagram is of interest for the study of the properties of the system and for the development of new materials.

Card 1/3

ACQUISITION NR REF 000811

hygroscopicity of the guanidinium perchlorate-lithium perchlorate melts approached that of lithium perchlorate. Orig art. has 4 figures and 2 tables

ASSOCIATION None

SUBMITTED 19Feb6

ENCL 01

SUB CODE GC, IC

NR REF 000811

OTHER

Card 213



ACC NR: AP7002819

SOURCE CODE: UR/0078/66/011/012/2819/2820

AUTHOR: Rosolovskiy, V. Ya.; Titova, K. V.

ORG: Oxidizer Laboratory, Institute of General and Inorganic Chemistry  
im. N. S. Kurnakov, Academy of Sciences (Institut obshchey i neorgan-  
icheskoy khimii Akademii nauk, Laboratoriya oksisliteley)

TITLE: Nitroguanidinium perchlorate

SOURCE: Zhurnal neorganicheskoy khimii, v. 11, no. 12, 1966, 2819-2820

TOPIC TAGS: nitroguanidinium perchlorate, chemical synthesis, ~~nitro-~~  
~~guanidinium perchlorate property~~ GUANIDINE, PERCHLORATE,  
PERCHLORIC ACID

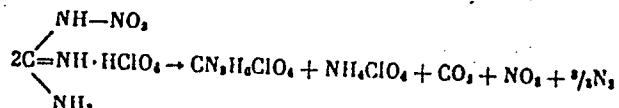
ABSTRACT: Nitroguanidinium perchlorate (NGPC) was prepared by dissolv-  
ing to saturation nitroguanidine in warm 72% perchloric acid. Cooling  
of the solution yielded colorless hygroscopic NGPC crystals. NGPC has  
a density of  $1.93 \pm 0.05$  g/cm<sup>3</sup>, is stable at room temperature in dry air,  
is soluble in polar organic solvents, and is hydrolyzed by water,  
methyl- or ethyl alcohol, and dioxan. The interplanar spacings and  
relative line intensities of x-ray patterns of NGPC powder are given  
in the table. The heating curve of NGPC recorded at a heating rate of  
3 deg/min, exhibits an endothermic effect at 75-80C, probably due to  
the polymorphic transformation of NGPC, and an exothermic effect at

Card 1/3

UDC: 547.495.9'117.3'113.7.04

ACC NR: AP7002819

120C due to simultaneous melting and decomposition of the substance.



Anhydrous perchloric acid dissolves 48.1% of NGPC at 25C. The solid phase in equilibrium with the saturated solution is an addition product of one molecule of perchloric acid to NGPC. This addition product is, probably, "nitroguanidinium diperchlorate." It can be isolated in the form of colorless hygroscopic crystals which are stable at room temperature, but which decompose in vacuum to form perchloric acid and NGPC. The substance melts incongruently on heating to 70C in a closed vessel. Orig. art. has: 1 table.

[W. A. 77]

[BO]

Card 2/3

ACC NR: AP7002819

Interplanar distances and relative line  
intensities for nitroguanidinium perchlorate

Line no.	I <sub>rel</sub>	d, Å	Line no.	I <sub>rel</sub>	d, Å	Line no.	I <sub>rel</sub>	d, Å
1	10	4.50	5	5	3.45	10	2	2.54
2	4	4.07	6	6	3.16	11	4	2.34
3	6	3.82	7	5	3.07	12	6	2.24
4	5	3.58	8	4	2.89	13	5	1.90
			9	1	2.69	14	2	1.67

SUB CODE: 21, 07/ SUBM DATE: 07Jul65/ ORIG REF: 001

Card 3/3



2-1

BC

**Determination of sulphuric acid in solutions containing aluminium, chromium, and ferric sulphate.** III. S. A. TOLKATONOV and J. (I. TITOVA (J. Appl. Chem. Russ., 1933, 8, 1271—1283).— 25 ml. of aq.  $Al_2(SO_4)_3$  are titrated with 0.5N-NaOH, an excess of 12 ml. of which is then added; the solution is diluted to 100 ml., and saturated with  $CO_2$  at the b.p., cooled, and diluted to 250 ml., filtered, and excess of alkali in an aliquot part of the filtrate is titrated with 0.5N- $H_2SO_4$  (Me-orange).  $Cr_2(SO_4)_3$  is determined analogously, an excess of 10 ml. of 0.5N-NaOH being added per 0.1 g. of  $Cr_2O_3$  in the solution. In the case of  $Fe_2(SO_4)_3$  treatment with  $CO_2$  is not necessary; the excess of alkali should be 8 ml. per 0.1 g. of  $Fe_2O_3$ . The mean error is  $\pm 0.2-0.3\%$ . R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

SECTION	SUBSECTION	RELATIONS	RELATIONS
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
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96	96	96	96
97	97	97	97
98	98	98	98
99	99	99	99
100	100	100	100

BC

91

Determination of sulphuric acid in presence of copper salts. J. G. TIROVA (J. Appl. Chem. Russ., 1934, 7, 1277-1281).—H<sub>2</sub>SO<sub>4</sub> is determined in presence of CuSO<sub>4</sub> by titrating with standard NaOH to the appearance of a turbidity, due to Cu(OH)<sub>2</sub>, of equal intensity to that given by addition of the theoretical amount of NaOH to a H<sub>2</sub>SO<sub>4</sub> solution of known concn., also containing CuSO<sub>4</sub>. R. T.

TITOVA, L.A.; KASHIRSKAYA, M.M.; MOSKALENKO, L.S.; KUDIMOVA, A.T.

Method for determining pregnanediol and estrogens in the urine.  
Lab. delo 8 no.4:26-27 Ap '62. (MIRA 15:5)  
(PREGNANEDIOL) (ESTROGENS)  
(URINE--ANALYSIS AND PATHOLOGY)

TITOVA, L.A.; KASHIRSKAYA, M.M.; MOSKALENKO, L.S.; KUDIMOVA, A.T.

Improved support stand for the shaking apparatus for test tubes  
and flasks. Lab.delo 7 no.9:58-59 S '61. (MIRA 14:10)  
(LABORATORIES--APPARATUS AND SUPPLIES)



TITOVA, L.A.

We are improving production methods and equipment. Kons. i  
ov. prom. 16 no.10:13-14 0 '61. (MIRA 14:11)

1. Voronezhskiy sovnarkhoz.  
(Voronezh Province---Canning and preserving---Equipment and  
supplies)

FEDENEV, G.S., kand.tekhn.nauk; ROL'SHCHIKOV, Ye.P., inzh.; MITYUSHEV, S.I., dotsent; OL'KHOVOY, A.I., inzh.; TITOVA, LA., inzh.; KUTYYEV, G.M., inzh.; TREGUBOV, G.G., inzh.; ASHUKIN, D.D., kand.tekhn.nauk, retsenzent; MAKSIMOVICH, B.M., kand.tekhn.nauk, retsenzent; PETROVA, V.L., inzh., red.; VASIL'YEVA, N.N., tekhn.red.

[Mechanization and automation of information and accounting work in railroad sections] Mekhanizatsiia i avtomatizatsiia informatsionno-uchetnoi raboty na otdeleniiakh zheleznykh dorog. Moskva, Vses.izdatel'sko-poligr. ob"edinenie M-va soobshcheniia, 1962. 159 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut zheleznodorozhnogo transporta. Trudy, no.240). (MIRA 16:2)

(Railroads--Management)  
(Electronic computers)

TERENT'YEV, A.P.; GRACHEVA, R.A.; TITOVA, L.F.; DELENKO, T.F.

New method for the production of optically active aspartic acid. Dokl.  
AN SSSR 154 no.6:1406-1408 F '64. (MIRA 17:2)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. 2. Chlen-  
korrespondent AN SSSR (for Terent'yev).

TERENT'YEVA, A.P.; GRACHEVA, R.A.; TITOVA, L.F.

Synthesis of carboxylic acids through furan derivatives. Part 8:  
Cleavage of  $\alpha$ -(2-furyl)ethylamine and preparation of optically  
active benzoylalanine. Zhur.ob.khim. 34 no.2:513-515 F '64.  
(MIRA 17:3)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.

TERENT'YEV, A.P.; GRACHEVA, R.A.; TITOVA, L.F.; KAZBULATOVA, N.A.

Spectropolarimetric study of Schiff's bases in the furan series.  
Dokl. AN SSSR 152 no.6:1373-1375 0 '63. (MIRA 16:11)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
2. Chlen-korrespondent AN SSSR (for Terent'yev).

TITOVA, L.I., aspirant

Investigation of the work conditions of classification yard  
personnel and proposals for the elimination of traumatism. Trudy  
MIIT no.148:71-92 '62. (MIRA 16:3)  
(Railroads--Hump yards) (Railroads--Accidents)

TITOVA, L.I. (Moscow)

"On the calculation of slope stability in a multilayered loose medium according to the theory of limit equilibrium"

Report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow 29 Jan - 5 Feb 64.

VINNIKOV, Ya.A.; GAZENKO, O.G.; TITOVA, L.K.; BRONSHTEYN, A.A.

Morphological and histochemical studies on the labyrinth of  
animals under conditions of a changed gravitational field.  
Izv. AN SSSR Ser. biol. no.2:222-231 Mr-Apr '63. (MIRA 17:5)

1. Institut evolyutsionnoy fiziologii imeni Sechenova AN SSSR.



1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
<p>BC</p> <p>Penetration in growth of larval and embryonic cells in <i>Pteris brevis</i>. L. K. Thoma (Compt. rend. Acad. Sci. U.R.S.S., 1940, 27, 783-786). J. D. B.</p> <p>Penetration in growth of embryonic and differentiated tissues of larvae of <i>Lima</i> sp. L. K. Thoma (Compt. rend. Acad. Sci. U.R.S.S., 1940, 27, 780-781). J. D. B.</p>																			
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																			
FROM SYMBOL										TO SYMBOL									
1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									

TITOVA, L. K.

35236

Osobennosti Rosta Larval'nykh i Imaginal'nykh Elementov v Lichinochnoy stadii  
Razvitiya Piepis Brassicae. Uchen. Zapiski (Leningr. Gos. Un-T im. zhana)  
Seriya Biol. Nauk. Vyp. 20, 1949, S. 181-206.---Bibliogr: S. 205-06

SO: Letopis' Zhurnal'nykh Statey Vol. 34, Moskva, 1949

TITOVA, L.K.

Features in the growth of larval and imaginal elements in the larval  
stage of *Pieris brassicae*, Uch.zap.Len.un. no.113:181-206 '49.

(Cabbage maggot) (Larvae)

(MIRA 10:3)

TITOVA, L.K.

Titova, L.K. -- "Development of the Olfactory Organs." Cand Biol Sci, Acad Med Sci USSR,  
4 Feb 54. (Vechernyaya Moskva, 22 Jan 54)

SO: SUM 168, 22 July 1954

*TITOVA, L.K.*  
USSR/General Biology - Individual Development.

B-4

Abs Jour : Ref Zhur - Biol., No 7, 1958, 28528  
Author : Vinnikov, Ya.A., Titova, L.K.  
Inst : -  
Title : Development of Sensory Organs in Vertebrates.  
Orig Pub : Probl. sovrem. embriologii. L., Un-t, 1956, 89-96  
Abstract : Review of the role of contacting and synaptic bonds in  
development of sensory organs.

Card 1/1

TITOVA, L.K.

Development of olfactory organs in fishes and amphibians. Dokl.AN  
SSSR 107 no.5:749-751 Ap '56. (MLRA 9:8)

1. Predstavleno akademikom I.I. Shmal'gauzenom.  
(Olfactory nerve) (Sense organs--Fishes)

USSR/Human and Animal Morphology - Normal and Pathological.  
Sense Organs.

S

Abs Jour : Ref Zhur Biol., No 11, 1958, 50409

Author : Titova, L.K.

Inst : Academy of Sciences of USSR

Title : Development of Jacobson's Organ in Man

Orig Pub : Dokl. AN SSSR, 1956, 107, No 6, 895-896

Abstract : On the basis of the study of human embryos at the age from 4 weeks of intra-uterine life until birth, a brief description of the development of Jacobson's organ (JO) is given. JO appears at the end of the 4th and in the beginning of the 5th week of embryogenesis in the form of a sulcus in the lower part of the nasal septum. At the age of 2 months JO has the form of two narrow, long, blind sacs situated in the thick of the nasal septum,

Card 1/2

- 49 -

USSR/Human and Animal Morphology - Normal and Pathological:  
Sense Organs.

S

Abs Jour : Ref Zhur Biol., No 11, 1958, 50409

at its base. The lining of Jo is completely identical with such a nasal cavity and the processes of differentiation of one and the other completely coincide in time. JO is innervated by a branch of the trigeminal nerve. Atresia of JO usually occurs still before the moment of birth.

Card 2/2



7110000 L.R.  
VINNIKOV, Ya.A.; TITOVA, L.K.

[Morphology of the organ of smell] Morfologiya organa obonianiia.  
Moskva [Medgiz], 1957. 295 p.  
(OLFACTORY NERVE)

11 Titov, L.K.  
VINNIKOV, Ya.A.; TITOVA, L.K.

Presence and distribution of acid phosphatase in the organ of Corti in animals kept in relative quiet and in animals exposed to noise [with summary in English]. Biul. eksp. biol. i med. 44 no.10:60-63 O '57. (MIRA 11:2)

1. Iz instituta evolyutsionnoy fiziologii imeni I.M.Sechenova (dir. - akademik L.A.Orbeli) Akademii nauk SSSR, Leningrad. Predstavlena akademikom L.A.Orbeli)

(LARYRINTH, metabolism,

Corti's organ acid phosphatase in animals, eff. of noise)  
(PHOSPHATASES,

acid, in Corti's organ, eff. of noise in animals)

(NOISE, effects,

on Corti's organ acid phosphatases in animals (Rus))

AUTHORS: Vinnikov, Ya. A., Titova, L. K.

20-2-46/50

TITLE: In Vivo Observations on an Isolated Organ of Corti Under Usual Conditions and Under Application of Sound Stimuli (Prizhiznennyye issledovaniya nad izolirovannym kortiyevym organom v obychnykh usloviyakh i pri zvukovom vozdeystvii)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 2, pp. 327-330 (USSR)

ABSTRACT: The cochleae of guinea-pigs, small cats, and rabbits served as experimental objects. Beside the control which was not stimulated by sound the authors exposed only the isolated organ in a series of experiments to a sound stimulation (1500 or 300 c, 95 db) of the duration of one hour and in a second series of a duration of 1-3 hours. After killing the experimental animals the sound stimulation was continued in the thermostat 1/2-1 hour at 37°. The isolated cochleae were given into a Ringer's solution without soda at 37°. The cochleae, in most cases left ones, were conserved as control; the right ones coloured in vivo with neutral red. The investigation was carried out under magnification by a magnifier. For the microscopic and phase-contrast-investigation the cochlea was dissected in windings which were cut off subsequently and put in physiological solution on the object carrier. The pictures observed here are described. The sound stimulation with high and low frequencies did not change these pictures, only in the case that an

Card 1/3

In Vivo Observations on an Isolated Organ of Corti Under Usual 20-2-46/50  
Conditions and Under Application of Sound Stimuli.

unimportant diffuse colouring of the fundamental substance of the basilar membrane is indicated. The membrane reacts, however, to the slightest touch often with a characteristic wave-like vibration. The Corti organ is then described in detail with the picture of the in vivo colouring. Under the action of the sound stimulus the picture changes rapidly, independently of the fact whether the action on the animal took place before or after the extirpation or in both cases. On the level of the lower and partly also of the middle winding in many exterior hair cells swellings and vacuolization of the cytoplasm or, in contrast, core compressions at sound stimulation of high frequency are observed. In the case of longer action the cells become ball-like. Single cells can fall out of the total mosaic of the organ. The inner hair cells become similar, but changed to a smaller extent. Analogous alterations occur with different variations in the upper winding of the cochlea in the case of action of low frequencies. The Corti organ shows a viability in isolated state. Without sound action a very characteristic rosette- or bunch-like granule depositing occurs in the exterior and inner hair cells, strictly in their apical part. Under the influence of high frequency sound stimulus the granule depositing is changed or stopped, especially within the range of the lower and middle winding. The granules become greater.

Card 2/3

In Vivo Observations on an Isolated Organ of Corti Under Usual  
Conditions and Under Application of Sound Stimule.

20-2-46/50

Also in the exterior hair cells the granule formation is increased and their size and number increases rapidly. High and low frequencies increase the granule formation to a certain extent; also in the Deuters cells and in the exterior as well as in the inner columns. Phalanges remain, as a rule, uncoloured. In the neurons of the spiral ganglion a similar increase of the granule formation under the influence of the sound stimulus can be detected. The above mentioned cyto- and histophysiological observations facilitate to detect to a certain degree the specific reaction of the hair cells to the sound stimulation which differs from that of other objects. The reaction of the secells to sound of high or low frequency corresponds more or less to their position in the Corti organ, i.e. on the level of the upper or lower winding. There are 5 references 2 of which are Slavic.

ASSOCIATION:

Institute for Evolutionary Physiology imeni I.M. Sechenov AN USSR  
(Institut evolyutsionnoy fiziologii im. I.M. Sechenova AN SSSR)

PRESENTED:

June 3, 1957 by L.A. Orbeli, Academician

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*TITOVA, L.K.*

20-5-48/48

AUTHORS: Vinnikov, Ya. A. and Titova, L. K.

TITLE: Presence and Distribution of Glycogen in the Organ of Corti at Relative Rest and Under Application of Sound Stimuli (Nalichiye i raspredeleniye glikogena v kortiyevom organe vo vremya otnositel'nogo pokoya i v usloviyakh zvukovogo vozdeystviya)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 5, pp. 892 - 895 (USSR)

ABSTRACT: The histochemical investigation of the Corti organ showed in its elements an unusual high content of glycogen (references 4 and 5). Its character and the distribution was changed hereby according to the circumstance whether the experimental animal was in a state of relative rest or of a functional stress. The authors carried out three series of experiments: Series I - the experimental animals (guinea pigs, rabbits, and young cats) were in the state of relative rest. The glycogen distribution was here, according to the kind of experimental animal, different. In the case of guinea pigs the glycogen is concentrated only in the exterior hair cells of the entire Corti organ in all labyrinth ducts. It lacks in the inner hair cells. One succeeds to observe the neurons of the spinal ganglia in total preparations, which correspond to the single la-

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byrinh ducts. Here single glycogen granulae are found in it. In the case of rabbits the glycogen granulae are in the inner hair-cells, in contrast to the guinea pigs. In general the total picture correpsonds to that of the guinea pigs. In the case of young cats as well as in the case of guinea pigs the glycogen lacks in the inner hair cells. Series II - the animals were exposed to a high sound frequency (1500 gts, 95 db). In the case of all experimental animals the content and the distribution character of the glycogen changed. After an action of 1 hour it was found in the exterior hair cells which lie in the hind and partly central arch that the glycogen of the excited hair cells loses here its granular shape and becomes a diffuse shape (figure 2). The concentration of the diffuse glycogen increases in the direction of the basal pole and rises here rapidly. Thus the presence of the apico-basal gradient in the distribution and the concentration of the glycogen in the excited exterior hair cells can be found. Simultaneously also a general radial gradient of the increase of the concentration of the apico-basal gradient of the distribution of the gylcogen exists, beside the last mentioned. However, the general concentration of the glycogen in the hair cells of rabbits and

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young cats is inferior to that of guinea pigs to a considerable extent. Analogous alterations were also observed in the IIIrd experimental series, when the experimental animals were exposed to a low sound frequency (300 gts, 95 db). However, in contrast to the second series the alterations in the hair cells were observed only in the range of the upper and partly central arch. Thus the experiments carried out show clear alterations in the character and in the distribution of the glycogen in the exterior hair cells of the Corti organ, in the state of a relative rest as well as in the state of excitation by the action of sound stimuli. The excitation of the hair cells is connected on the one hand with the frequency of the sound waves and on the other hand with their position in the one or other arch of the labyrinth. The consumption (probably by means of the glycogenolysis) and the resynthesis of the glycogen take place parallelly with it. There is no reason to doubt that the glycogen is subjected to analogous alterations and plays the same rôle in the Corti organ, in the liver, in the muscles, in the nervous system, and in the retina (references 2, 3, 6 - 11). There are 2 figures, 11 references, 6 of which are Slavic.

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Under Application of Sound Stimuli

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TITOVA, L.K.

VINNIKOV, Ya.A., TITOVA, L.K.

Presence and distribution of alkaline phosphatase in the organ of Corti in animals during comparative quiet and following sound stimulation [with summary in English]. Biul.eksp.biol. i med. 45 no.3:101-106 Mr'58 (MIRA 11:5)

1. Iz Instituta evolyutsionnoy fiziologii imenii I.M. Sechenova (dir. - akademik L.A. Orbeli) Akademii nauk SSSR, Leningrad. Predstavlena akademikom L.A. Orbeli.

(LABYRINTH, metabolism,

Corti's organ alkaline phosphatase, eff. of sound stimulation (Rus))

(PHOSPHATASES,

alkaline in Corti's organ, eff. of sound stimulation (Rus))

(NOISE, effects,

on Corti's organ alkaline phosphatase (Rus))

*TITOVA, L.K.*

VINNIKOV, Ya. A., TITOVA, L.K.

Distribution of nucleic acids in the hair cells of the organ of Corti in animals during relative rest and during sound stimulation [with summary in English]. Biul.eksp.biol. i med. 45 no.4:73-78 (MIRA 11:5)  
Ap '58

1. Iz Instituta evolyutsionnoy fiziologii imeni I.M. Sechenova (dir. - akademik L.A. Orbeli), Leningrad. Predstavlena akademikom L.A. Orbeli.

(LABYRINTH, metabolism

nucleic acid distribution in hair cells of organ of Corti during rest & during sound stimulation (Rus))

(NUCLEIC ACIDS, metabolism

distribution in hair cells of organ of Corti during rest & during sound stimulation (Rus))

AUTHORS: Vinnikov, Ya. A., Titova, L. K.

20-119-1-45/52

TITLE: The Occurrence and the Distribution of Specific Acetyl-Cholinesterase in the Cortian Organ of Animals in a State of Relative Rest and Under Conditions of Sonic Stimuli (Nalichiye i raspredeleniye spetsificheskoy atsetilkholinesterazy v kortiyevom organe zhivotnykh, nakhodyashchikhsya v sostoyanii otnositel'nogo pokoya i v usloviyakh zvukovogo vozdeystviya)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 1, pp. 164-167 (USSR)

ABSTRACT: After the authors had determined that the endogenous energetic substratum of the Cortian organ is glycogen (Reference 1) in the splitting of which and resynthesis non specific enzymes participate (alkaline and acid phosphatase, References 2,3) it was natural to begin with the investigation of the cholinergic structures of this organ. The data referring to this are scarce and uncertain (References 4-6). A survey of the present stand of this problem in publications (References 7-19) is given. The participation of the carbohydrate metabolism in the synthesis of

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